# The Darwin Core Archive Viewer App

In this document, we give a quick overview of functionality and design of the Darwin Core Archive Viewer App. The main functioning of this app is to view and inspect the content of a Darwin Core Archive (DwC-A). This include visualization of both metadata, data content and the data itself. The app itself will be a stand-alone web application, but on our way to a functioning app we will make a set of new R-functions that will be included in the LivNoR package.

We need to add to the functionality of emldown::render\_eml() which renders an xml file as html. Where we can add value is by having more interaction with the data (e.g. exploring the missingness in the data, allowing user to download components as .csv or maps and figures as .pdf, .jpg or .png)

## Key technical decision:

[This is for Joe to write – some words about what we discussed regarding server vs client side processes, scalability, shiny dashboard vs regular shiny, issues with dependencies and version control etc]

## Key functionality

### Starting page/landing page:

We will need a starting page / landing page with the following key functionality:

* Some info about the app
* Links to: nina.no; livingNorway.no and https://github.com/LivingNorway
* Select data set (archive) to inspect/view
  + Select published DwC-A or select from your local computer
    - Making it possible to inspect your own data set
* This is also probably where the metadata appears once the selection is being made
  + We might consider displaying the complete metadata
  + Also – list data tables and other content in the DwC-A
  + Display citation of the dataset here

### Data table view

On this side/tab – we should be able to view the data tables

* Select between the different tables (core tables and extensions)
* Simple search and sorting of table fields
* Potentially filter and select?
* Allow download to csv of filtered tables?

### Geographic map

* Plot geographic coordinates in a leaflet (or similar) map to allow download of map image (pdf, jpeg, png)
* Allow popup labels of points (chosen by user – species/samples/ etc)

### Temporal and taxonomic coverage

* Indicate temporal and taxonomic coverage of the dataset